# PATENT SPECIFICATION 742,903

*Date of filing Complete Specification : July 29, 1954.*

*Application Date : Aug. 31, 1953. No. 23986/53.*

*Complete Specification Published : Jan. 4, 1956.*

Index at Acceptance :—**Class 44**, BD5B(6 : 11), BD8(D : F : I).

COMPLETE SPECIFICATION.

## Door Fastenings.

We, FREDERICK HAGUE NEALE and JOSEPH ALEC HAWKES, both of 117—122, Scholefield Street, in the City of Birmingham 7, and both British Subjects, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement :—

This invention has for its object to provide in an improved form a door fastening of the slidable bolt type.

A fastening in accordance with the invention comprises the combination of a hollow body part, a bolt slidable in the body part and notched at opposite sides, a spring for moving the bolt to its extended position, a pair of fittings adapted to be secured to opposite sides of the door, a slidable push piece in each fitting, and an arm pivotally attached to the inner end of each push piece and having its free end engaged in one of the notches respectively, the arrangement being such that inward movement of either push piece will effect a retraction of the bolt by the interaction of the free end of the associated arm and a shoulder at the end of the associated notch.

One example of a mortise or other door fastening according to the invention is shown in the accompanying drawings, in which Figure 1 is a sectional plan of a part of a door incorporating the fastening, and Figure 2 is a sectional end view of the fastening seen in Figure 1.

A hollow body part 3 consisting of a length of metal tube, which is of circular or rectangular form in cross section and which is closed at one end, is adapted to be accommodated in a correspondingly shaped hole extending from the free edge of the door 4. In the body part 3 is contained a slidable bolt 5 of corresponding circular or rectangular cross section, and between the inner end of the bolt and the closed end of the body part is contained a helical spring 6 for moving the bolt to its extended position as shown. Also adjacent to the inner end of the bolt 5 the latter has formed at its opposite sides a pair of similar elongated notches 7, which result in the formation of shoulders 5*a*.

The body part 3 may be retained in the door by a flange at the outer end, sunk in the free edge of the door and secured thereto by screws.

For attachment to the opposite sides of the door 4, there are provided a pair of fittings 8, preferably formed integrally with handles 8*a* adapted to be secured to opposite sides of the door. In each of these fittings 8 is formed a hole of square, circular or other cross section, and in each fitting is contained a slidable push piece 9 of corresponding section.

To the inner end of each push piece 9 is pivotally connected an arm 10, the free end of which engages with the associated notch 7 in the bolt through a slot 3*a* in the body part 3. Each arm is formed of sheet metal having a 90° twist in its length and has formed on its free end a T-head, which prevents inadvertent withdrawal of the arm from the slot 3*a*. The bolt 5 is prevented from rotation and limited in its outward movement in the body part by a screw pin 11 projecting from the bolt into one of the slots 3*a*.

The arrangement is such that retraction of the bolt 5 can be effected by inward movement of either of the push pieces 9 the latter being adapted to be actuated by pressure of a thumb against its outer end.

It will be understood that during inward movement of a push piece the shoulder 5*a* on the bolt forms an abutment for the inner end of the arm 10.

If desired the outer end of the bolt may have a cam face 5*b* and may carry a roller 12 so that by contact with a fixed striker on closing the door, it can be moved inwardly independently of the push pieces, the striker

[*Price* 3*s.* 0*d.*]

being provided with a hole for engagement by the bolt when the door is closed.

Desirably each push piece 9 is independently spring loaded by a spring 13, or alternatively the fastening is supplied with a plurality of interchangeable washers of various thicknesses for association with the push pieces, to take up free play of the push pieces when the fastening is used with a thick door.

What we claim is :—

1. A door fastening comprising in combination, a hollow body part, a bolt slidable in the body part and notched at opposite sides, a spring for moving the bolt to its extended position, a pair of fittings adapted to be secured to opposite sides of the door, a slidable push piece in each fitting, and an arm pivotally attached to the inner end of each push piece and having its free end engaged in one of the notches respectively, the arrangement being such that inward movement of either push piece will effect a retraction of the bolt by the interaction of the free end of the associated arm and a shoulder at the end of the associated notch.

2. A door fastening comprising the combination and arrangement of parts substantially as described with reference to the accompanying drawings.

MARKS & CLERK.

PROVISIONAL SPECIFICATION.

## Door Fastenings.

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This invention has for its object to provide in an improved form a door fastening of the slidable bolt type.

A fastening in accordance with the invention comprises the combination of a hollow body part, a bolt slidable in the body part, a spring for moving the bolt to its extended position, a pair of fittings adapted to be secured to the opposite sides of the door, a slidable push piece in each fitting, and a spring loaded pawl pivotally attached to the inner end of each push piece, the pawls being adapted to interact with notches in the bolt for effecting retraction of the bolt.

In one example of a mortise or other door fastening according to the invention, the hollow body part consists of a length of metal tube which is of circular or rectangular form in cross section and which is closed at one end by a plug, the body part being adapted to be accommodated in a correspondingly shaped hole extending from the free edge of the door. In the body part is contained a slidable bolt of corresponding circular or rectangular cross section, and between the inner end of the bolt and the closed end of the body part is contained a helical spring for moving the bolt to its extended position. Also adjacent to the inner end of the bolt the latter has formed at its opposite sides a pair of similar elongated notches, each notch having a tapering base which at one end merges into the outer surface of the bolt and at the other end forms a shoulder.

For attachment to the opposite sides of the door, there are provided a pair of escutcheons or like fittings, each comprising a boss-like part which at one end terminates in a flange through which fixing screws can be inserted. Preferably such fittings are formed integrally with handles adapted to be secured to opposite sides of the door. In each of these fittings is formed an axial hole of square, circular or other cross section, and in each fitting is contained a slidable push piece of corresponding section. To the inner end of each push piece is pivotally connected a pawl, the free end of which can pass through a side slot in the body part into engagement with the associated notch in the bolt. At the junction of the pawl and push piece there may be mounted, if required, a coiled spring which maintains the pawl in engagement with the bolt and also moves the push piece to its normal outer position.

The arrangement is such that retraction of the bolt can be effected by inward movement of either of the push pieces, the latter being adapted to be actuated by pressure of a thumb against its outer end.

If desired the outer end of the bolt may be rounded, so that by contact with a fixed striker on closing the door, it can be moved inwardly independently of the push pieces, the striker being provided with a hole for engagement by the bolt when the door is closed.

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Abingdon : Printed for Her Majesty's Stationery Office, by Burgess & Son (Abingdon), Ltd.—1955.
Published at The Patent Office, 25, Southampton Buildings, London, W.C.2,
from which copies may be obtained.

742,903 COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of the Original on a reduced scale.*

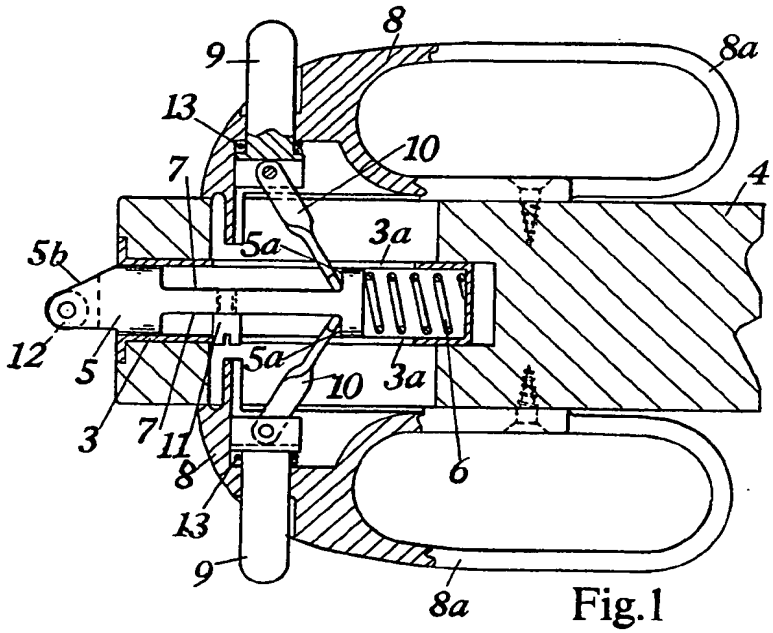


Fig.1

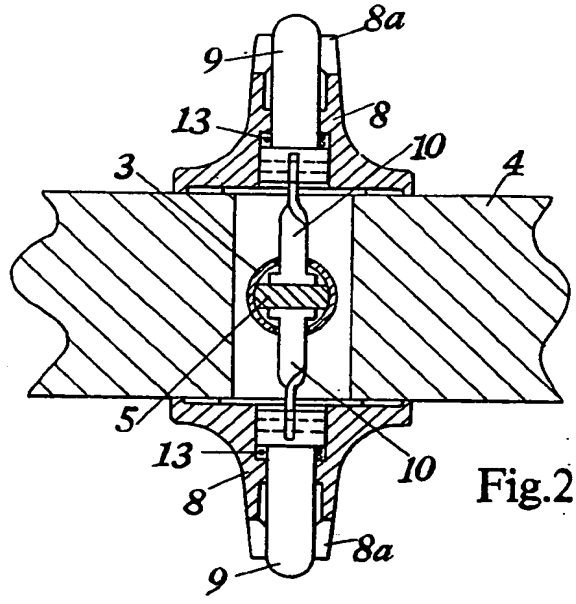


Fig.2